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EXAMINER

NGUYEN, QUANG N

ART UNIT PAPER NUMBER

2141

DATE MAILED: 04/02/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/650,729

Applicant(s)

CHURCHYARD ET AL. *SC*

Examiner

Quang N. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Detail Action***

1. This Office Action is in response to the Amendment A filed on 02/13/2004. Claims 1-2 and 15-16 have been amended. Claims 1-16 are presented for examination.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-2 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art, herein after referred as AAPA, in view of Feldman et al. (6,130,889), herein after referred as Feldman.**

4. As per Claim 1, AAPA discloses a method of maintaining a data communications protocol session, the method comprising the steps of:

    sending a request from a client 130 to a server 140 over a data communications network (AAPA, Fig. 1, pg. 1, lines 13-24);

    receiving said request in said server 140 (AAPA, Fig. 1, pg. 1, lines 13-24);

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sending a response to said request from said server 140 to said client 130 over said data communications network 190 (AAPA, Fig. 1, pg. 2, lines 1-2);

receiving said response in an agent (*proxies 110 and 160; and firewalls 120 and 150*) (AAPA, Fig. 1, pg. 1, lines 13-24);

sending said response from said agent 110 to said client 130;

receiving said response in said client 130 (AAPA, Fig. 1, pg. 1, lines 13-24);

However, the AAPA does not explicitly teach the steps of determining if illusory content needs to be sent prior to sending said response; performing processing in said agent as a result of said response; and if illusory content needs to be sent during said processing, sending one or more messages containing illusory content from said agent to said client, wherein said one or more messages containing said illusory content is sent for preventing a time out operation as a result of security processing.

In the related art, Feldman teaches Integrated Switch Router "ISR" (*agent*) sends one or more VC KeepAlive messages (*i.e., sending one or more messages containing illusory content*) to inform its neighbor (*client*) of its continued existence. In order to prevent a neighbor timeout period from expiring (*i.e., determining if illusory content messages need to be sent*), ISR periodically sends or forwards the VC Keep Alive messages to neighbors for preventing the neighbor timeout period from expiring in the event when no other protocol messages have been transmitted (*i.e., no response protocol messages have been sent to the client*) within the periodic interval time (Feldman, col. 7, lines 25-31).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the AAPA method of maintaining data communications to include determining if illusory content needs to be sent during said processing, sending one or more messages containing illusory content from said agent to said client, as taught by Feldman, for the purpose of preventing a neighbor timeout period from expiring in the event when no other protocol messages have been transmitted within the periodic interval time (Feldman, col. 7, lines 25-31).

5. Claims 2 and 15-16 are corresponding method, computer readable medium and system claims of claim 1; therefore, they are rejected under the same rationale.

6. As per Claim 13, AAPA in view of Feldman discloses the method of claim 2, and AAPA further discloses wherein said data communications protocol session further comprises an HTTP session (AAPA, pg. 2, lines 1-12). Note: Examiner assumes applicant intended HTTP, not HTML, as the context of the claim is in regard to a protocol, not a language.

7. As per Claim 14, AAPA in view of Feldman discloses the method of claim 13, and AAPA further discloses wherein said step of sending one or more messages containing illusory content further comprises the steps of: creating a copy of said response; modifying said copy of said response by inserting an entity-header (*according to RFC*

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*2616, header fields may also be extended to allow for additional entity-header field);*  
and transmitting said modified response said client.

**8. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Feldman et al (6,130,889), as applied to claim 2 above, and further in view of Kloth (6,598,034).**

9. As per Claim 3, AAPA in view of Feldman discloses the method of claim 2, but lacks wherein said step of receiving a response further comprises receiving a file.

In the related art, Kloth discloses receiving a response further comprises receiving a file for the purpose of exchanging files on the Internet (Kloth, col. 11, lines 1-3).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the AAPA in view of Feldman method of maintaining communications to include wherein said step of receiving a response further comprises receiving a file, as taught by Kloth, for the purpose of exchanging files on the Internet (Kloth, col. 11, lines 1-3).

10. As per Claims 4-5, AAPA in view of Feldman, and further in view of Kloth discloses the method of claim 3, and Kloth further discloses wherein said file further comprises a computer program (Kloth, col. 11, lines 9-11) and wherein said file further comprises a document (Kloth, web page - col. 11, line 7).

**11. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Feldman et al (6,130,889), as applied to claim 2 above, and further in view of Ji et al. (5,623,600).**

12. As per Claim 6, AAPA in view of Feldman discloses the method of claim 2, but lacks wherein said step of performing processing further comprises searching a file.

In the related art, Ji teaches wherein said step of performing processing further comprises searching a file (Ji, col. 5, lines 30-38) for the purpose of detecting viruses in file transfers (Ji, col. 4, lines 63-67).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the AAPA in view of Feldman method of maintaining communications to include wherein said step of performing processing further comprises searching a file, as taught by Ji, for the purpose of detecting viruses in file transfers (Ji, col. 4, lines 63-67).

13. As per Claim 7, AAPA in view of Feldman, and further in view of Ji discloses the method of claim 6, and Ji further discloses wherein said step of searching a file further comprises scanning said file for one or more computer viruses (Ji, col. 4, lines 63-67).

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14. As per Claim 8, AAPA in view of Feldman, and further in view of Ji discloses the method of claim 6, and Ji further discloses wherein said step of searching a file further comprises scanning for one or more text phrases (Ji, col. 2, lines 1-5).

**15. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Feldman et al (6,130,889), as applied to claim 2 above, and further in view of Hair (6,615,349).**

16. As per Claims 9-10, AAPA in view of Feldman discloses the method of claim 2, but lacks wherein said step of performing processing further comprises encrypting a file and decrypting a file.

In the related art, Hair teaches encrypting a file or decrypting a file (Hair, col. 4, lines 63-67; col. 5, line 18) for the purpose of improved secure transmission of files over the Internet (Hair, col. 1, lines 15-17).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the AAPA in view of Feldman method of maintaining communications to include further comprising encrypting a file or decrypting a file, as taught by Hair, for the purpose of improved secure transmission of files over the Internet (Hair, col. 1, lines 15-17).



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**17. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Feldman et al (6,130,889), as applied to claim 2 above, and further in view of Takaragi et al (6,615,349).**

18. As per Claims 11-12, AAPA in view of Feldman discloses the method of claim 2, but lacks wherein said step of performing processing further comprises creating a public key digital signature and verifying a public key digital signature.

In the related art, Takaragi teaches creating a public key digital signature or verifying a public key digital signature (Takaragi, col. 4, lines 19-24) for the purpose of securing the security of a computer network (Takaragi, col. 1, lines 5-8).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the AAPA in view of Feldman method of maintaining communications to include further comprising creating a public key digital signature and verifying a public key digital signature, as taught by Takaragi et al, for the purpose of securing the security of a computer network (Takaragi, col. 1, lines 5-8).

***Response to Arguments***

19. In the remarks, applicant argued in substance that

(A) Prior Art does not teach or suggest “one ore more messages containing said illusory content is sent for preventing a time out operation as a result of security processing”.

As to point (A), **AAPA** teaches certain processes that may occur at an agent of an entity (*proxies 110 and 160 and/or firewalls 120 and 150*) communicating over a communication network can take a significant amount of time to complete such as activities related to checking for viruses (*such as scanning a file requested by a client*) and/or encryption/decryption (*of a large amount of data*) can take a significant amount of time while executing at a firewall (*as a result of security processing*) (**AAPA**, page 2, lines 13-19).

In the related art, **Feldman** teaches Integrated Switch Router “ISR” (*agent*) sends one or more VC KeepAlive messages (*i.e., sending one or more messages containing illusory content*) to inform its neighbor (*client*) of its continued existence. In order to prevent a neighbor timeout period from expiring (*i.e., determining if illusory content messages need to be sent*), ISR periodically sends or forwards the VC Keep Alive messages to neighbors for preventing the neighbor timeout period from expiring in the event when no other protocol messages have been transmitted (*i.e., no response*

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*protocol messages have been sent to the client*) within the periodic interval time (**Feldman**, col. 7, lines 25-31).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of **AAPA** and **Feldman** to send one or more messages containing said illusory content (*VC KeepAlive messages*) from an agent to a client for preventing a time out operation as a result of security processing.

20. Applicant's arguments as well as request for reconsideration filed on 02/13/2004 have been fully considered but they are not deemed to be persuasive.

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (703) 305-8190.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (703) 305-4003. The fax phone number for the organization is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Quang N. Nguyen

  
RUPAL DHARIA  
SUPERVISORY PATENT EXAMINER